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A revision of *Pseudobium* IV. Three new species, a new synonymy, and additional records (Coleoptera: Staphylinidae: Paederinae)

V. ASSING

A b s t r a c t : *Pseudobium luculentum* nov.sp. (= *P. sinaicum* auctt.) (Yemen, Saudi Arabia), *P. falciferum* nov.sp. (Laos), and *P. procerum* nov.sp. (Malaysia: Sabah) are described and illustrated. The type material of several species is revised. *Pseudobium semiflavum* CAMERON 1924 is redescribed and illustrated. The following synonymy is proposed: *Pseudobium sinaicum* (FAUVEL 1904) = *P. buettikeri* (COIFFAIT 1979), nov.syn. Lectotypes are designated for *Lathrobium sinaicum* FAUVEL 1904, *Pseudobium laeviventre* CHAMPION 1922, and *P. semiflavum* CAMERON 1924. Additional records of ten described *Pseudobium* species are presented, among them several new country records. The distributions of seven species are mapped. The distribution of the genus, which now includes a total of 26 species, ranges from the Afrotropical region across the south of the Palaearctic into the Oriental region. A revised checklist of the species is provided.

K e y w o r d s : Coleoptera, Staphylinidae, Paederinae, *Pseudobium*, Palaearctic region, Oriental region, taxonomy, new species, new synonymy, lectotype designation, new records, checklist.

Introduction

Pseudobium MULSANT & REY 1878 was previously represented in the Palaearctic region by 22 species (ASSING 2012a). The known distribution of the genus ranges from the Afrotropical region (Uganda) across the south of the Palaearctic into the Oriental region.

The present paper is the fourth in a series of contributions aiming at a revision and clarification of the taxonomy and zoogeography of *Pseudobium*. An examination of additional type and non-type material that has become available since the latest contribution (ASSING 2012a) yielded a new synonymy, three new species and new records of ten species, among them several new country records.

Material and methods

The material treated in this study is deposited in the following public institutions and private collections:

BMNH The Natural History Museum, London (R.G. Booth)
 IRSNB..... Institut Royal des Sciences Naturelles de Belgique, Bruxelles (Y. Gérard)
 NHMB Naturhistorisches Museum Basel (M. Geiser, I. Zürcher)
 NHMW Naturhistorisches Museum Wien (H. Schillhammer)
 NME Naturkundemuseum Erfurt (M. Hartmann)
 NMNHP National Museum of Natural History, Praha (J. Hájek)
 cAss..... author's private collection
 cSch..... private collection Michael Schülke, Berlin
 cSha..... private collection Alexey Shavrin, Daugavpils

The morphological studies were conducted using a Stemi SV 11 microscope (Zeiss Germany) and a Jenalab compound microscope (Carl Zeiss Jena). A digital camera (Nikon Coolpix 995) was used for the photographs. The maps were created using Map-Creator 2.0 (primap) software.

Body length was measured from the anterior margin of the mandibles (in resting position) to the abdominal apex, the length of the forebody from the anterior margin of the mandibles to the posterior margin of the elytra, head length from the anterior margin of the frons to the posterior margin of the head, elytral length at the suture from the apex of the scutellum to the posterior margin of the elytra, and the length of the aedeagus from the apex of the ventral process to the base of the aedeagal capsule. The "parameral" side (i.e., the side where the sperm duct enters) is referred to as the ventral, the opposite side as the dorsal aspect.

Species descriptions and new records

Pseudobium peyerimhoffi JARRIGE 1949

Material examined: Tunisia: 1♂, 10 km S Tabarka, 8.IV.1986, leg. Schillhammer (NHMW)

Comment: This species is widespread in the south of the West Mediterranean, from Sicily across Northwest Africa to the Canary Islands. The above specimen represents the second record from Tunisia (ASSING 2006).

Pseudobium gridellii JARRIGE 1949

Material examined: Spain: 1♀, Cordoba, 14 km NNW Cordoba, road Cordoba-Villaviciosa, Rio Guadiato, 400 m, gravel river bank, 13.V.1967, leg. Bacchus & Levey (BMNH).

Comment: *Pseudobium gridellii* is widespread in the West Mediterranean (ASSING 2012a).

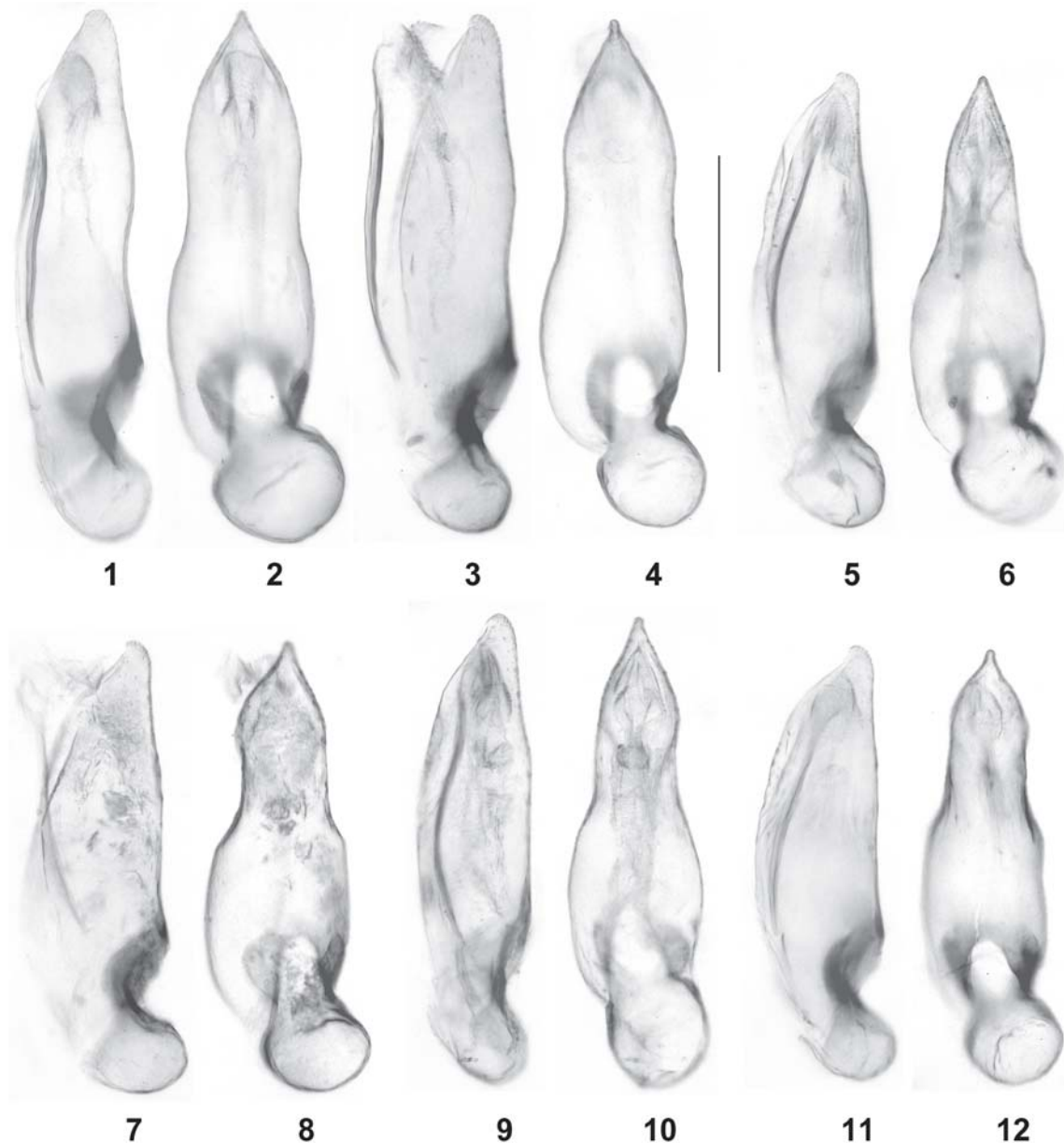
Pseudobium alanyaense FAGEL 1969

Material examined: Turkey: 1♀, Alanya, 12 km W Payallar, 100 m, 31.III.1996, leg. Hartmann (NME); 1♂, Alanya, 15 km W Türkler, 5.IV.1996, leg. Kopetz (cAss).

Comment: The known distribution of *P. alanyaense* is confined to Anatolia. Most of the known specimens were collected in the environs of Alanya, Antalya province (ASSING 2012a).

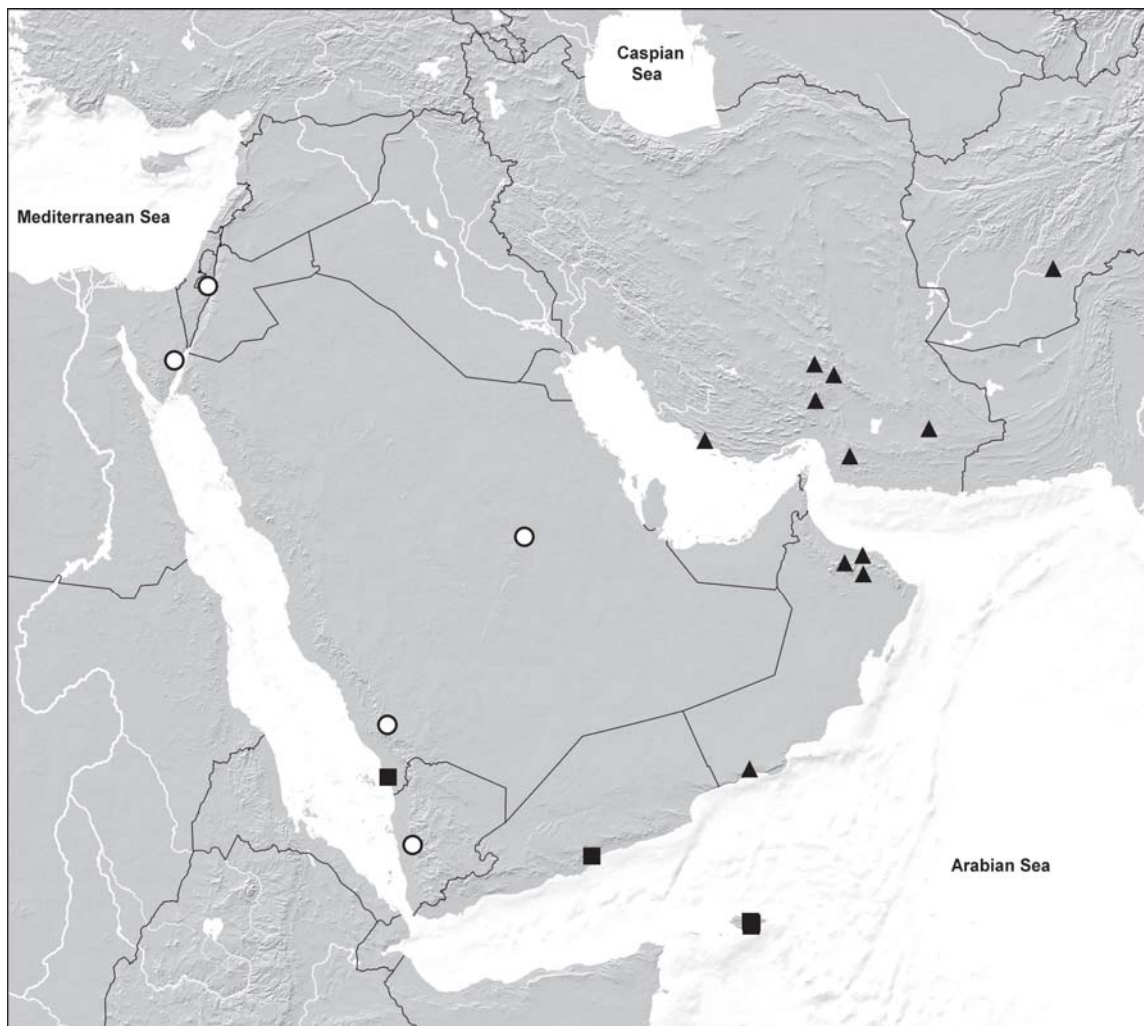
***Pseudobium cypriacum* JARRIGE 1949**

Material examined: Turkey: 1♀, Antalya, N Kumluca, Altınyaka, 15.V.1991, leg. Schönmann & Schillhammer (NHMW). Oman: 3♀ [identification uncertain], 20 km N Samad, Wadi Andam, 22°58'N, 58°05'E, 650 m, 17.-18.IV.1985, leg. Holzschuh (cAss).



Figs 1-12: *Pseudobium sinaicum* (FAUVEL) (1-4) and *P. richteri* (SCHEERPELTZ) (5-12): aedeagus in lateral and in ventral view; (1-2) holotype of *P. buettikeri* (COIFFAIT); (3-4) Yemen; (5-6) Iran: Kerman; (7-8) Iran: Hormozgan; (9-10) Afghanistan; (11-12) Oman. Scale bar: 0.2 mm.

Comment: The known distribution of *P. cypriacum* includes southern Turkey, Cyprus and Iran; for a distribution map see ASSING (2007). Based on external characters, the above females from Oman may belong to this species, but this record requires confirmation based on males.



Map 1: Revised distributions of *Pseudobium richteri* (SCHEERPELTZ) (triangles), *P. sinaicum* (FAUVEL) (circles), and *P. luculentum* nov.sp. (squares), based on examined records.

***Pseudobium richteri* (SCHEERPELTZ 1961)** (Figs 5-12, 20, Map 1)

Material examined: Oman: 1 ex., Fanjah, Wadi Fanjah, 23°32'N, 58°06'E, 150 m, 5.IV.1985, leg. Holzschuh (NHMB); 1 ex., 20 km N Samad, Wadi Andam, 22°58'N, 58°05'E, 650 m, 17.-18.IV.1985, leg. Holzschuh (cAss). Iran: 1 ♂, Kerman province, Bardsir-Baft, 10 km SE Qal'eh Askar, 29°26'N, 56°45'E, 3360 m, 22.V.2010, leg. Frisch & Serri (MNHUB); 1 ♂, Kerman province, Darb Behesht - Jiroft, 50 km N Jiroft, 10 km N Delfard Goruh, 29°04'N, 57°33'E, 2650 m, 28.V.2010, leg. Frisch (cAss).

Comment: Based on the hypothesis that *P. richteri* and *P. buettikeri* were synonymous, *P. richteri* was recently reported from Yemen and Israel (ASSING 2012b, ASSING & FELDMANN 2012). These records, however, refer to *P. sinaicum* (see the following section). Confirmed records of *P. richteri* are currently known from Iran, Oman, and Afghanistan (Map 1).

The aedeagus is remarkably variable (Figs 5-12). However, evidence suggesting that *P. richteri* is a complex of different species was not found. For an illustration of the male sternite VIII see Fig. 20.

***Pseudobium sinaicum* (FAUVEL 1904) (Figs 1-4, 18-19, Map 1)**

Lathrobium sinaicum FAUVEL 1904: 71.

Lathrobium buettikeri COIFFAIT 1979: 170; **nov.syn.**

Type material examined: *P. sinaicum*. Lectotype ♀, present designation: "Ouađ el Aïn (rég. du Sinaï) 2 / Coll. R. I. Sc. Sc. N. B., ex coll. Fauvel / *sinaicum* Fvl. / Ex-Typis / Coll. et det. A. Fauvel, *Lathrobium sinaicum* Fvl., R.I.Sc.N.B. 17.479 / Lectotypus ♀ *Lathrobium sinaicum* Fauvel, desig. V. Assing 2013 / *Pseudobium sinaicum* (Fauvel), det. V. Assing 2013" (IRSNB).

P. buettikeri. Holotype ♂: "Wadi Shaib, Luha, 27.5.1976 / Saudi Arabien, W. Büttiker / Type / *Lathrobium buettikeri* H. Coiffait 1978 / *Pseudobium buettikeri* Coiff., H. Coiffait det. 1980 / *Pseudobium buettikeri* (Coiffait) det. V. Assing 2012" (NHMB).

Additional material examined: Saudi Arabia: 1♂, Hesua, 1930 m, 28.IX.1981, leg. Büttiker (NHMB).

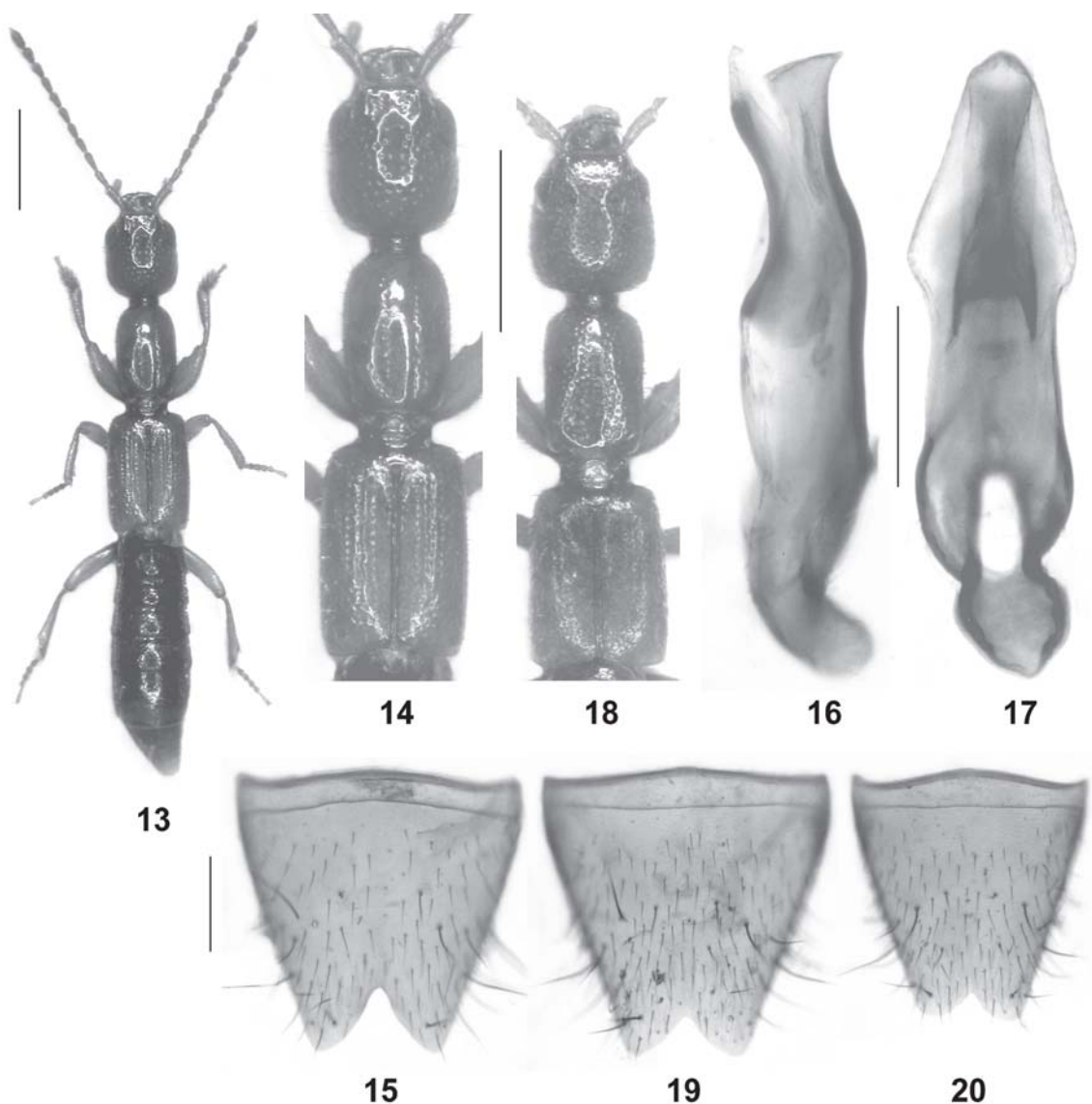
Comment: *Lathrobium sinaicum* was described from two female syntypes ("deux exemplaires ♀") collected in "Ouady el Ain" and deposited in the Peyerimhoff and Fauvel collections (FAUVEL 1904). The examined syntype from the Fauvel collection is designated as the lectotype. The study of this specimen revealed that it is not conspecific with the previous interpretation by COIFFAIT (1982).

The original description of *P. buettikeri* is based on two males, the holotype from "Wadi Shaib, Luha" and one paratype from "Hieth, 40 km S. de Riyadj" (COIFFAIT 1979). An examination of the holotype (Figs 1-2, 18-19) revealed that it is conspecific with *P. sinaicum*; hence the synonymy proposed above.

A comparison with previously identified material revealed that *P. sinaicum* and *P. richteri* represent distinct, albeit highly similar and evidently also very closely related species. *Pseudobium sinaicum* is distinguished from *P. richteri* only by on average larger body size, by the slightly larger posterior excision of the male sternite VIII (Figs 19-20), and by the shape of the aedeagus (slightly larger, 0.47-0.49 mm, ventral process broader in ventral view; *P. richteri*: 0.39-0.45 mm, ventral process narrower, distinctly delimited from basal portion of capsule in ventral view) (Figs 1-12). Based on these results, the previous records of *P. richteri* from Yemen and Israel (ASSING 2012b, ASSING & FELDMANN 2012) refer to *P. sinaicum*, which is now known from Saudi Arabia, Yemen, Israel, and Egypt (Map 1). Based on their external characters, two examined females, one from Iran (Hormozgan) and one from Afghanistan, both previously identified as *P. richteri*, may belong to *P. sinaicum*, too, but these records require confirmation. Previous records of *P. sinaicum* from the Yemenitic island Socotra (ASSING 2012b), on the other hand, refer to an undescribed species (see the following section).

***Pseudobium luculentum* nov.sp. (Figs 13-17, Map 1)**

Type material: Holotype ♂: "Yemen, Soqotra Is., Dixam plateau, WADI ESGEGO, 2.-3.xii.2003, N 12°28'09", E 54°00'36", 300 m [GPS], Leg. P. Kabátek / YEMEN - SOQOTRA 2003 Expedition; Jan Farkač, Petr Kabátek & David Král / Holotypus ♂ *Pseudobium luculentum* sp. n. det. V. Assing 2013" (NMNHP). Paratypes: 1 ex.: same data as holotype (cAss); 2 exs.: same data as holotype, but "Jan Farkač lgt." (cAss); 1 ex.: "Yemen, Soqotra Is.; 6.-7.xii.2003, Noked plain: WADI IREEH, N 12°23'11" E 53°59'47", 95 m [GPS]; Jan Farkač lgt. / YEMEN - SOQOTRA 2003 Expedition; Jan Farkač, Petr Kabátek & David Král" (cAss); 2 exs.: Yemen, Soqotra Is., 2003, 3.xii., Dixam plateau, WADI ZEERIQ, 750 m, N12°31'08" E53°59'09" [GPS], David Král lgt. / YEMEN - SOQOTRA 2003 Expedition; Jan Farkač, Petr Kabátek & David Král" (cAss); 1 ♀: Yemen, Kawr Sayban mt., NW Al Mukalla, 14°37'N, 49°03'E, 575 m, at light, 29.III.2007, leg. Rejzek (cSch); 1 ♀: "Gizan am Roten Meer, 25-26.III.1983 / Saudi Arabia, C. Holzschuh / *sinaicum* Fauv. ♀, V. Gusarov det. 1995, sensu Coif." (NHMB). Fifteen additional paratypes from Socotra are deposited in NMNHP; for the data see ASSING (2012b).



Figs 13-20: *Pseudobium luculentum* nov.sp. (13-17), *P. sinicum* (FAUVEL) (18-19; holotype of *P. buettikeri* (COIFFAIT)), and *P. richteri* (SCHEERPELTZ) (20): (13) habitus; (14, 18) forebody; (15, 19-20) male sternite VIII; (16-17) aedeagus in lateral and in ventral view. Scale bars: 13-14, 18: 1.0 mm; 15-17, 19-20: 0.2 mm.

E t y m o l o g y : The specific epithet (Latin, adjective: stately) refers to the relatively large body size, one of the characters distinguishing this species from *P. sinicum*, with which it was previously confused.

D e s c r i p t i o n : Body length 5.5-6.3 mm; length of forebody 3.2-3.5 mm. Habitus as in Fig. 13. Coloration: forebody reddish, with the posterior portion of the elytra sometimes indistinctly paler; abdomen dark-reddish to reddish-brown; legs reddish-yellow; antennae reddish.

Head (Fig. 14) approximately 1.2 times as long as broad; lateral margins parallel in dorsal view; posterior angles weakly marked, convex in dorsal view; punctation rather coarse and rather sparse; interstices without microsculpture, broader than diameter of punctures. Eyes large and convex, more than half as long as distance from posterior

margin of eye to neck in dorsal view. Antenna slender, approximately 2.2 mm long; antennomeres V-X twice as long as broad, or nearly so.

Pronotum (Fig. 14) nearly 1.5 times as long as broad and approximately 0.85 times as wide as head, distinctly convex in cross-section; impunctate midline rather broad, on either side delimited by a dense series of approximately 20 punctures.

Elytra (Fig. 14) 1.05-1.10 times as long as, and distinctly broader than pronotum, humeral angles marked; macropunctuation arranged in somewhat irregular series in anterior half to anterior three fourths; microsculpture absent. Hind wings fully developed.

Abdomen distinctly narrower than elytra, widest at segment VII; punctation moderately fine, dense on anterior tergites, gradually decreasing in density towards apex of abdomen, rather sparse on posterior tergites; interstices with very shallow microsculpture, glossy; posterior margin of tergite VII with palisade fringe.

♂: sternite VII with broadly concave posterior margin; sternite VIII (Fig. 15) with relatively deep V-shaped posterior excision, otherwise unmodified; aedeagus (Figs 16-17) approximately 0.7 mm long; ventral process apically truncate and ventrally acute; dorsal plate distinctly curved in lateral view.

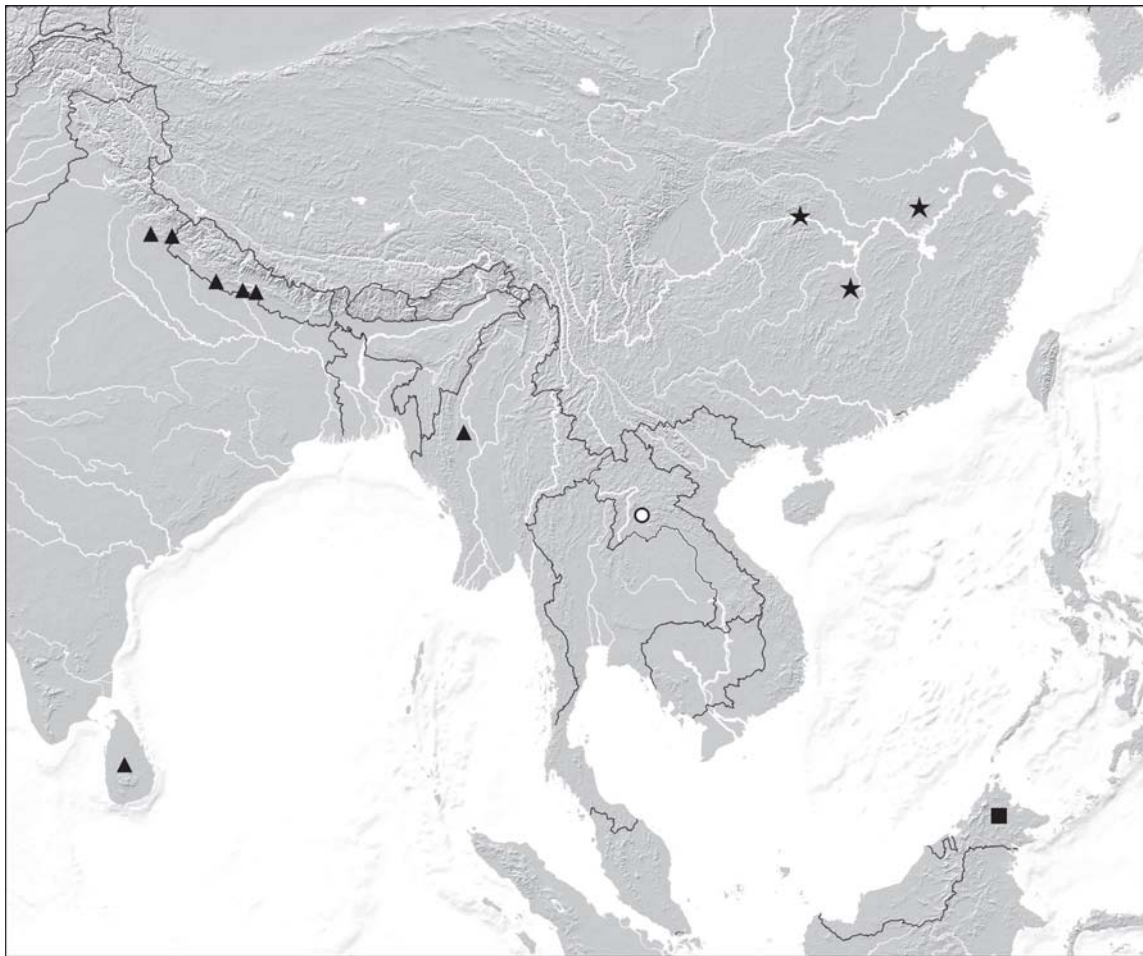
Comparative notes: *Pseudobium luculentum* is readily distinguished from the similarly coloured and geographically close *P. sinaicum* and *P. richteri* by somewhat larger size, larger eyes, the much sparser and coarser punctation of the head (Figs 14, 18), and by the male sexual characters.

Distribution: The type specimens were collected in several localities in the Yemenitic island Socotra, in one locality in the Yemenitic mainland, and in one locality in southwestern Saudi Arabia (Map 1). Since this species was previously confused with *P. sinaicum*, mainly a result of the interpretation and key by COIFFAIT (1982), at least part of the previous records of *P. sinaicum* probably refer to *P. luculentum*.

***Pseudobium seminigrum* (KRAATZ 1859) (Map 2)**

Material examined: Nepal: 1 ex., Narayani province, Chitwan district, Sauraha, Hotel Riverside, 27°34'N, 84°30'E, 160 m, at light, 6.-8.VII.2009, leg. Küßner (NME); 1 ex., same data, but 190 m, 26.VI.-2.VII.2011, leg. Hartmann (cAss); 1 ex., Lumbini province, Binai river, 27°35'N, 83°52'E, 150 m, deciduous forest, 14.VII.2001, leg. Weigel (NME); 1 ex., Rapati province, SE Lamahi, bank of Rapati river, 27°50'N, 82°33'E, 13.VII.2001, leg. Weipert (NME). India: 2 exs., Uttarakhand, left side of Kosi river, 5 km N Ramnagar, "N29°43'2 E79°14'0", 7.-11.VI.2011, leg. Shavrin (cSha, cAss). Myanmar: 4♂♂, 2♀♀, Sagaing Division, Alaungdaw Katthapa National Park, 22°19.173'N, 94°29.654'E, 400 m, 8.V.2003, leg. Boukal et al. (NHMW, cAss). Laos: 1♀, Vientiane province, Vang-Vieng, 18°55'N, 102°27'E, 300 m, 10.-15.V. & 1.-6.VII.2001, leg. Kolibáč (NHMB).

Comment: The coloration of *P. seminigrum* is evidently highly variable. The colour of the head and pronotum ranges from bright reddish to almost black. All of the above specimens from Nepal and one of the specimens from India have the head and pronotum dark-brown or darker. The previously known distribution of this species was confined to India and Sri Lanka; the revised distribution is illustrated in Map 2. The above specimens from Nepal and Myanmar represent new country records. The record from Laos is based on a female and requires confirmation.



Map 2: Revised distributions of *Pseudobium seminigrum* (KRAATZ) (triangles; doubtful female-based record from Laos omitted), *P. hunanum* ASSING (stars), *P. falciferum* nov.sp. (circle), and *P. procerum* nov.sp. (square).

***Pseudobium assimile* CAMERON 1924 (Figs 21-25)**

Type material examined: Syntype ♀: "Mothronwala, Dehra Dun., Dr. Cameron., 24.II.22. / *Pseudobium assimile* Cam. / M. Caméron. Bequest B.M. 1955-147. / Type / Syntypus ♀ *Pseudobium assimile* Cameron, rev. V. Assing 2013 / *Pseudobium assimile* ♀ Cameron, det. V. Assing 2013" (BMNH).

Additional material examined: Thailand: 1♂, Ranong province, Ban Na env., 22.-26.III.1994, leg. Majer (NHMB). Laos: 1♂, Vientiane province, Vang-Vieng, 18°55'N, 102°27'E, 300 m, 10.-15.V. & 1.-6.VII.2001, leg. Kolibáč (cAss).

Comment: The original description is based on an unspecified number of syntypes from "Dehra Dun District; Mothrowala" (CAMERON 1924). A single type specimen, a female, was located in the Cameron collection at the BMNH. Judging from the external characters, it is conspecific with the previous interpretation of *P. assimile* (ASSING 2012a). The males listed as additional material above represent the first records from Thailand and Laos, and considerably expand the distribution towards the southeast. Also, they are the first males that have become available for examination.

The habitus and the forebody are illustrated in Figs 21-22. The male sexual characters are as follows: sternite VII not distinctly modified; posterior excision of sternite VIII not very deep and broadly V-shaped (Fig. 23); aedeagus (Figs 24-25) approximately 0.4 mm long, slightly asymmetric in ventral view, and weakly sclerotized.

***Pseudobium hunanicum* ASSING 2012 (Map 2)**

Material examined: China: 3♂♂, 2♀♀, W-Hubei, N Badon, "31.1N 110.4E", 26.VI.&15.VII.2003, leg. Turna (NHMW, cAss); 3♂♂, 2♀♀, Anhui, Dabie Shan, 65 km SW Huoshan, 1400 m, 21.-24.VI.1998, leg. Bolm (NHMB, cAss).

Comment: The description of this very recently described species is based on a single male from Hunan. The above records suggest that *P. hunanicum* may be widespread at least in China. The currently known distribution is illustrated in Map 2.

***Pseudobium falciferum* nov.sp. (Figs 26-29, Map 2)**

Type material: Holotype ♂: "Laos: N-Vientiane Prov., Vang-Vieng, 300 m, N 18°55'23", E 102°26'55", 10-15.v. & 01-06.vii.2001, Jiří Kolibáč leg. / Holotypus ♂ *Pseudobium falciferum* sp.n. det. V. Assing 2013" (NHMB).

Etymology: The specific epithet (Latin, adjective: carrying a sickle (falx)) refers to the sickle-shaped apex of the ventral process of the aedeagus.

Description: Body length 5.2 mm; length of forebody 3.0 mm. Coloration: distinctly bicoloured; forebody dark-reddish, abdomen black; legs yellow, with the fore-legs slightly darker; antennae dark-brown, with antennomeres I-II and basal half of antennomere III reddish.

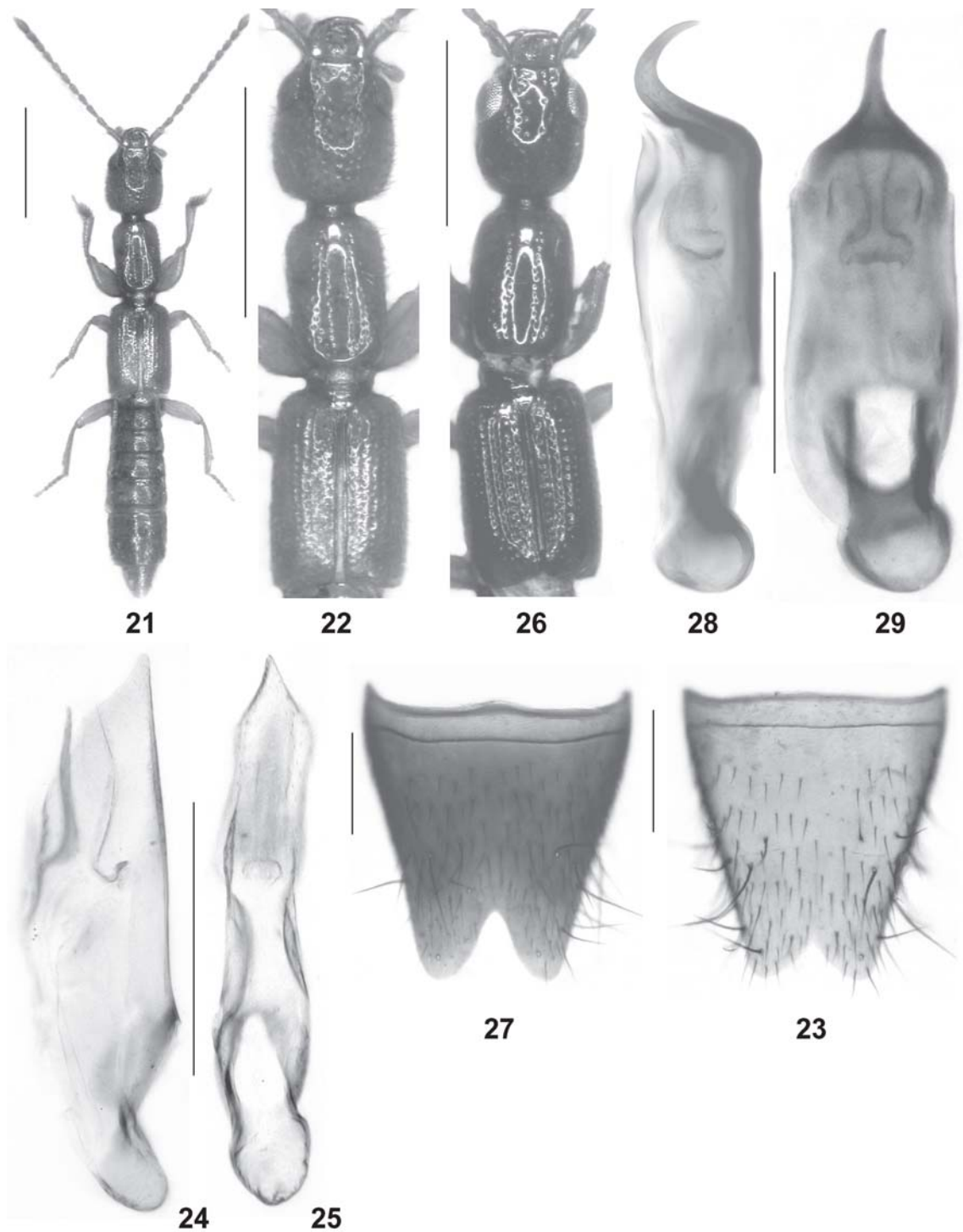
Head (Fig. 26) 1.22 times as long as broad, widest across eyes; lateral margins parallel in dorsal view; posterior angles weakly marked, convex in dorsal view; punctation rather sparse; interstices without microsculpture, broader than diameter of punctures. Eyes large and convex, more than half as long as distance from posterior margin of eye to neck in dorsal view. Antenna slender, approximately 1.8 mm long; antennomeres V-X approximately 1.5 times as long as broad.

Pronotum (Fig. 26) 1.45 times as long as broad and approximately 0.9 times as wide as head, distinctly convex in cross-section; impunctate midline rather broad, on either side delimited by a dense series of approximately 20 punctures.

Elytra (Fig. 26) 1.09 times as long as, and distinctly broader than pronotum, humeral angles marked; macropunctuation arranged in slightly irregular series in anterior four fifths; microsculpture absent. Hind wings fully developed.

Abdomen distinctly narrower than elytra, widest at segment VII; punctation rather coarse and moderately dense; interstices without microsculpture, glossy; posterior margin of tergite VII with palisade fringe.

♂: sternite VII with broadly and weakly concave posterior margin; sternite VIII with relatively deep V-shaped posterior excision, otherwise unmodified (Fig. 27); aedeagus (Figs 28-29) 0.56 mm long; ventral process of distinctive shape, apical portion slender and strongly curved in lateral view.



Figs 21-29: *Pseudobium assimile* CAMERON (21-25) and *P. falciferum* nov.sp. (26-29): (21) habitus; (22, 26) forebody; (23, 27) male sternite VIII; (24-25, 28-29) aedeagus in lateral and in ventral view. Scale bars: 21-22, 26: 1.0 mm; 23-25, 27-29: 0.2 mm.

Comparative notes: In coloration and general appearance, *Pseudobium falciferum* is similar to *P. seminigrum*, but readily distinguished by distinctly larger body size, a more robust body with a relatively larger head and pronotum, coarser punctuation of the head, the pronotum, and particularly the abdomen, a less convex (cross-section) pronotum with more parallel lateral margins in dorsal view, the narrower posterior excision of the male sternite VII, and by the completely different morphology of the aedeagus. For illustrations of *P. seminigrum* see ASSING (2012a).

Distribution: The type locality is situated 105 km to the north-northwest of Vientiane in northern Laos (Map 2). *Pseudobium assimile* was collected in the same locality.

***Pseudobium laeviventre* CHAMPION 1922 (Figs 30-35)**

Type material examined: Lectotype ♂, present designation: "♂ / 2713 / Swal R. Basin, Almora U.P., Feb.'19. HGC / *Pseudobium laeviventre* Champ. [handwritten] / *Pseudobium laeviventre*, Champ. [printed] / E.M.M. 1922. det. G.C.C. / Brit.-Mus. 1922-71. / Type H.T. / Syntype / Lectotypus ♂ *Pseudobium laeviventre* Champion, desig. V. Assing 2013 / *Pseudobium laeviventre* Champion, det. V. Assing 2013" (BMNH). Paralectotype ♀: "Swal R. Basin, Almora U.P., Feb.'19. HGC / *Pseudobium laeviventre* Ch. / G.C. Champion coll., B.M. 1927-409 / Syntype" (BMNH).

Additional material examined: India: 3♂♂, 1♀, Uttaranchal, Nainital, China Peak env., 1900-2300 m, 18.-19.VII.2003, leg. Kejval & Trýzna (NHMW, cAss); 1♀, Uttaranchal, 30 km W Mussoorie, Dakpathar vill., Yamung river, 790 m, 4.VIII.2003, leg. Kejval & Trýzna (NHMW); 1♀, Uttaranchal, 13 km NW Nainital, Khairna Bridhe env., 900-1000 m, 13.-17.VII.2003, leg. Kejval & Trýzna (NHMW).

Comment: The original description is based on an unspecified number of syntypes, among them at least one male, from "Swal R. Division [...], Ranikhet and E. and W. Divisions [...] of Almora, Kumaon" (CHAMPION 1922). A male syntype located in the BMNH is designated as the lectotype. It is illustrated in Figs 30-35.

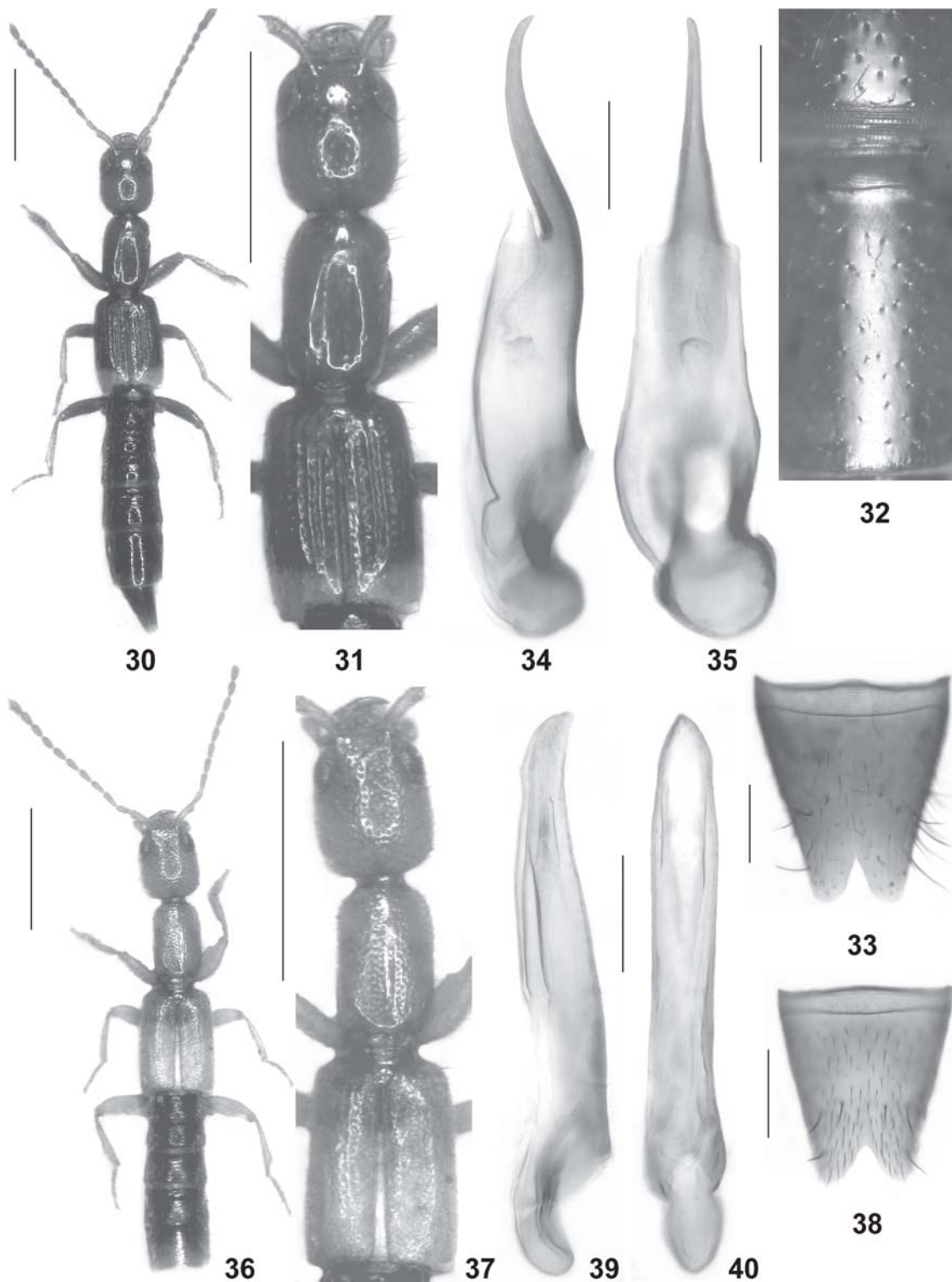
Pseudobium laeviventre is extremely similar to *P. iranicum* BOHÁČ 1988 both in external and in sexual characters. The material of *P. laeviventre* studied thus far differs from that of *P. iranicum* only by the somewhat sparser and finer punctuation of the head and abdomen and by the slightly less strongly bent ventral process of the aedeagus in lateral view. Whether or not these differences are an expression of inter- or intraspecific variation can only be clarified based on material from the regions between Iran and northern India.

***Pseudobium semiflavum* CAMERON 1924 (Figs 36-40)**

Type material examined: Lectotype ♂, present designation: "R. Song, Dehra Dun., Dr. Cameron., 2.IV.1922 / *Pseudobium semiflavum* Cam. / M. Cameron. Bequest B.M. 1955-147. / Type H.T. / Lectotypus ♂ *Pseudobium semiflavum* Cameron, desig. V. Assing 2013 / *Pseudobium semiflavum*, det. V. Assing 2013" (BMNH).

Comment: The original description is based on an unspecified number of syntypes from "Dehra Dun District; Song River" (CAMERON 1924). The single male syntype located in the Cameron collection at the BMNH is designated as the lectotype.

Redescription: Body length 4.2 mm; length of forebody 2.35 mm. Habitus as in Fig. 36. Coloration: head and pronotum reddish-yellow; elytra yellow; abdomen blackish-brown; legs and antennae yellowish.



Figs 30-40: *Pseudobium laeviventre* CHAMPION, lectotype (30-35) and *Pseudobium semiflavum* CAMERON, lectotype (36-40): (30, 36) habitus; (31, 37) forebody; (32) median portion of abdominal tergite VII and of posterior portion of tergite VI; (33, 38) male sternite VIII; (34-35, 39-40) aedeagus in lateral and in ventral view. Scale bars: 30-31, 36-37: 1.0 mm; 32-33, 38: 0.2 mm; 34-35, 39-40: 0.1 mm.

Head (Fig. 37) 1.27 times as long as broad; lateral margins parallel in dorsal view; punctation moderately coarse and conspicuously dense; interstices narrower than diameter of punctures, except for small patches in the middle of the dorsal surface where the punctation is slightly sparser. Eyes large and bulging, somewhat more than half the length of postocular region in dorsal view. Antenna long and slender, 1.7 mm long, preapical antennomeres approximately 1.5 times as long as broad.

Pronotum (Fig. 37) slender, approximately 1.5 times as long as broad and 0.85 times as broad as head; punctation dense, with the interstices narrower than the diameter of the punctures on either side of the moderately broad impunctate midline.

Elytra (Fig. 37) long, 1.15 times as long as pronotum; punctation fine and shallow, barely noticeably arranged in (very irregular) series. Hind wings fully developed.

Abdomen narrower than elytra; punctation distinct and dense; interstices slightly narrower than punctures on tergites III-VI; posterior margin of tergite VII with palisade fringe.

♂: sternite VIII (Fig. 38) with moderately deep V-shaped posterior excision; aedeagus (Figs 39-40) 0.49 mm long and conspicuously slender.

Comparative notes: In external appearance, *P. semiflavum* is similar to *P. assimile*, but differs by the darker abdomen, the distinctly denser punctation of the whole body, the absence of a distinct dorsal series of punctures on either side of the impunctate pronotal midline, the very indistinctly seriate punctation of the elytra, the distinctly longer and more slender antennae (*P. assimile*: antenna approximately 1.5 mm long; preapical antennomeres weakly oblong), and by the differently shaped aedeagus.

Distribution: *Pseudobium semiflavum* is currently known only from the type locality in Uttaranchal, northern India.

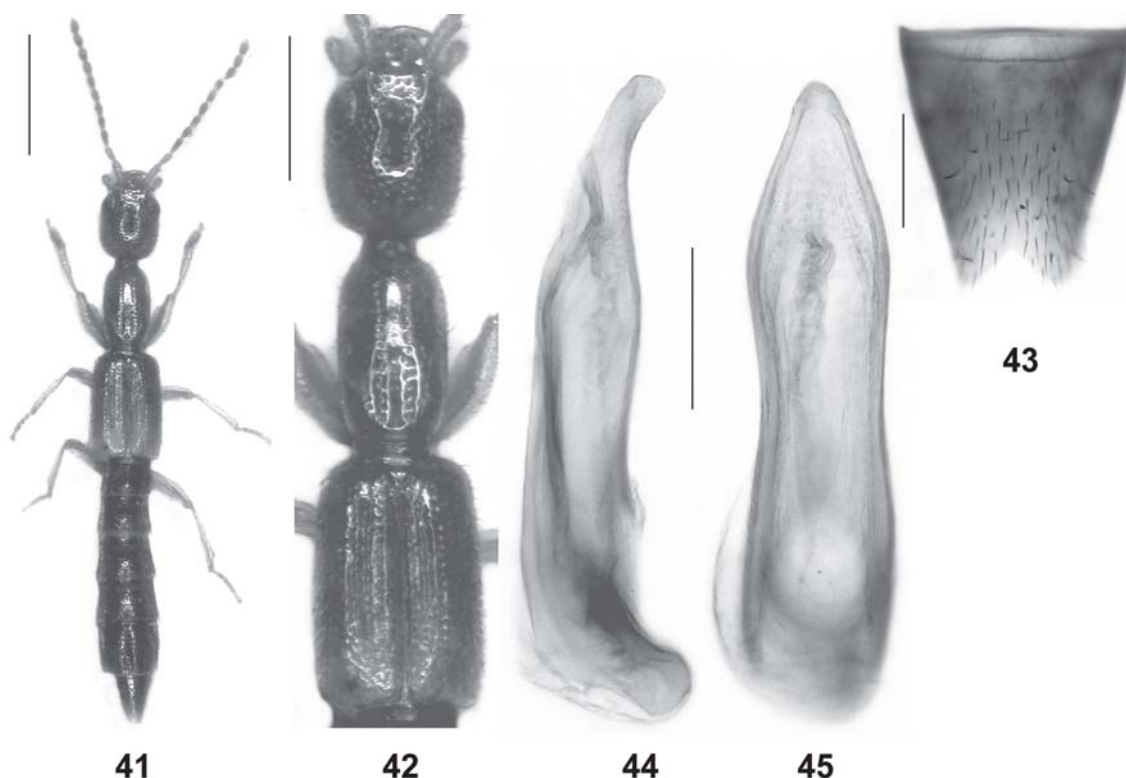
***Pseudobium procerum* nov.sp.** (Figs 41-45, Map 2)

Type material: Holotype ♂: "Sabah: 200ft, R. Karamuak, 7 m SSE. Telupid, 1-7.ix.1977 / At light / M.E. Bacchus, B.M. 1978-48 / Holotypus ♂ *Pseudobium procerum* sp.n. det. V. Assing 2013" (BMNH). Paratypes: 2♂♂ [1♂ without head and pronotum], 4♀♀: same data as holotype (BMNH, cAss).

Etymology: The specific epithet (Latin, adjective: slender) refers to the slim habitus of the species, particularly the shape of the pronotum.

Description: Body length 3.5-4.7 mm; length of forebody 2.1-2.4 mm. Habitus as in Fig. 41. Coloration: head and pronotum reddish; elytra reddish, with all of the posterior fourth yellowish, the yellowish coloration extending cephalad at suture; abdomen dark-brown; legs pale-yellowish; antennae yellowish, with antennomeres III-XI weakly infusate.

Head (Fig. 42) approximately 1.25 times as long as broad, widest across eyes; lateral margins subparallel in dorsal view; posterior angles weakly marked, convex in dorsal view; punctation rather coarse and dense; interstices without microsculpture, narrower than diameter of punctures, except for a narrow longitudinal impunctate or sparsely punctate patch along the middle of the dorsal surface. Eyes very large and moderately convex, distinctly more than half as long as distance from posterior margin of eye to neck in dorsal view. Antenna moderately slender, approximately 1.4-1.5 mm long; preapical antennomeres approximately 1.5 times as long as broad or nearly so.



Figs 41-45: *Pseudobium procerum* nov.sp.: (41) habitus; (42) forebody; (43) male sternite VIII; (44-45) aedeagus in lateral and in ventral view. Scale bars: 41: 1.0 mm; 42: 0.5 mm; 43: 0.2 mm; 44-45: 0.1 mm.

Pronotum (Fig. 42) very slender, approximately 1.7 times as long as broad and 0.8 times as broad as head; punctuation approximately as coarse as that of head and rather dense in lateral portions; on either side of the broadly impunctate midline with discal series of approximately 20 punctures.

Elytra (Fig. 42) approximately 1.15 times as long as, and distinctly broader than pronotum, humeral angles marked; macropunctuation arranged in rather distinct series in anterior three fourths of elytra; microsculpture absent. Hind wings fully developed.

Abdomen distinctly narrower than elytra, widest at segment VII; punctuation distinct and rather dense; interstices without microsculpture, glossy; posterior margin of tergite VII with palisade fringe.

♂: sternite VII not distinctly modified; sternite VIII with moderately deep and rather broadly V-shaped posterior excision (Fig. 43); aedeagus (Figs 44-45) approximately 0.4 mm long; ventral process of distinctive shape.

Comparative notes: This species is characterized by its slender habitus, particularly the strongly oblong pronotum, and by the shape of the aedeagus. It differs from *P. sumatrense*, whose male sexual characters are unknown, additionally by the much paler coloration (*P. sumatrense*: body black, except for the yellowish posterior margins of the elytra).

Distribution: The type locality is situated near the town Telupid [5°38'N, 117°07'E] in Sabah, the Malaysian part of Borneo (Map 2). The specimens were collected at a light source near a river.

Notes on unrevised species

Pseudobium sumatrense CAMERON 1930

C o m m e n t : This species was originally described as "*Pseudobium (Dysanabatium) sumatrensis*" [sic], based on a single female from "Padang", Sumatra (CAMERON 1930). According to ROUGEMONT (1997), who revised *Dysanabatium* BERNHAUER 1915 and who studied the holotype of *P. sumatrense*, the species belongs to *Pseudobium* and not to *Dysanabatium*.

Pseudobium castaneum CAMERON 1950

C o m m e n t : The original description is based on a female holotype from "Uganda-Turkhana" (CAMERON 1950).

Revised checklist of the *Pseudobium* species of the world

Doubtful (female-based) records are omitted in the checklist below.

species	distribution
<i>alanyaense</i> FAGEL 1969 = <i>yagmuri</i> ANLAŞ 2011	Turkey
<i>anatolicum</i> ASSING 2006	Turkey; Iran
<i>angusticolle</i> (HOCHHUTH 1851)	Armenia; Azerbaijan
<i>arabicum</i> COIFFAIT 1982	Saudi Arabia
<i>asiaticum</i> GUSAROV 1994	Middle Asia
<i>assimile</i> CAMERON 1924	N-India; Thailand; Laos
<i>benicki</i> BORDONI 1985	Spain
<i>castaneum</i> CAMERON 1950	Uganda
<i>cypriacum</i> JARRIGE 1949	Cyprus; Iran; Turkey
<i>dissimile</i> COIFFAIT 1978	Bhutan
<i>falciferum</i> nov.sp.	Laos
<i>gridellii</i> JARRIGE = <i>ibericum</i> COIFFAIT 1982	West Mediterranean; West Europe; south-western Central Europe
<i>hellenicum</i> ASSING 2006	Greece; W-Turkey
<i>hunanicum</i> ASSING 2012	China: Hunan, Hubei, Anhui
<i>iranicum</i> BOHÁČ 1988	Iran
<i>labile</i> (ERICHSON 1840)	West Mediterranean
<i>laeviventre</i> CHAMPION 1922	Afghanistan; N-India
<i>luculentum</i> nov.sp.	Yemen (incl. Socotra island); Saudi Arabia
<i>pakistanicum</i> ASSING 2007	Pakistan; Iran
<i>peyerimhoffi</i> JARRIGE 1949	North Africa; Canary Islands; S-Italy: Sicily
<i>procerum</i> nov.sp.	Malaysia: Sabah
<i>richteri</i> (SCHEERPELTZ 1961)	Iran; Afghanistan; Oman
<i>semiflavum</i> CAMERON 1924	N-India: Uttaranchal

species	distribution
<i>seminigrum</i> (KRAATZ 1859)	N-India; Sri Lanka; Nepal; Myanmar
<i>sinaicum</i> (FAUVEL 1904) = <i>buettikeri</i> (COIFFAIT 1979), nov.syn.	Egypt: Sinai; Saudi Arabia; Yemen
<i>sumatrense</i> CAMERON 1930	Indonesia: Sumatra

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Zusammenfassung

Pseudobium luculentum nov.sp. (= *P. sinaicum* auctt.) (Jemen, Saudi-Arabien), *P. falciferum* nov.sp. (Laos) und *P. procerum* nov.sp. (Malaysia: Sabah) werden beschrieben und abgebildet. Typenmaterial einiger Arten wird revidiert. *Pseudobium semiflavum* CAMERON 1924 wird redeskribiert und abgebildet. *Pseudobium buettikeri* (COIFFAIT 1979), nov.syn. wird mit *P. sinaicum* (FAUVEL 1904) synonymisiert. Für *Lathrobium sinaicum* FAUVEL 1904, *Pseudobium laeiventre* CHAMPION 1922 und *P. semiflavum* CAMERON 1924 werden Lectotypen designiert. Weitere Nachweise von zehn *Pseudobium*-Arten werden gemeldet, darunter eine Reihe von Erstnachweisen. Die Verbreitungsgebiete von sieben Arten werden anhand von Karten illustriert. Die Verbreitung der Gattung, die derzeit insgesamt 26 Arten umfasst, reicht von der afrotropischen Region über die südliche Paläarktis bis in die Orientalis. Ein aktualisierter Katalog der Arten wird erstellt.

References

- ASSING V. (2006): New species and records of *Pseudobium* Mulsant & Rey (Insecta: Coleoptera: Staphylinidae: Paederinae). — Linzer biologische Beiträge **38** (1): 385-391.
- ASSING V. (2007): On the genus *Pseudobium* Mulsant & Rey II. A new species from Pakistan and additional records (Coleoptera: Staphylinidae: Aleocharinae). — Linzer biologische Beiträge **39** (1): 15-21.
- ASSING V. (2012a): On the *Pseudobium* species of the Palaearctic region. III. A new species from China, a new synonymy, a new combination, and additional records (Insecta: Coleoptera: Staphylinidae: Paederinae). — Linzer biologische Beiträge **44** (1): 409-419.
- ASSING V. (2012b): On the Staphylinidae of Socotra Island, Yemen (Insecta: Coleoptera). — Linzer biologische Beiträge **44** (2): 973-986.
- ASSING V. & B. FELDMANN (2012): On the Staphylinidae of Israel (Insecta: Coleoptera). — Linzer biologische Beiträge **44** (1): 351-363.
- CAMERON M. (1924): New species of Staphylinidae from India. — The Transactions of the Entomological Society of London **1924**: 160-198.
- CAMERON M. (1930): Fauna sumatrensis. (Bijdrage Nr. 67). Staphylinidae (Col.). — Tijdschrift voor Entomologie **73**: 325-348.
- CAMERON M. (1950): New species of African Staphylinidae (Coleoptera) Part I. — Journal of the East Africa Natural History Society **19** (5): 179-191.
- CHAMPION G.C. (1922): Some Indian Coleoptera (7). — The Entomologist's Monthly Magazine **58**: 31-34.

- COIFFAIT H. (1979): Insects of Saudi Arabia. Coleoptera: Fam. Staphylinidae, Subfam. Xantholinae [sic], Staphylininae, Paederinae, Oxytelinae, Aleocharinae. — Fauna of Saudi Arabia **1**: 162-180.
- COIFFAIT H. (1982): Coléoptères Staphylinidae de la région paléarctique occidentale. IV. Sous famille Paederinae. Tribu Paederini 1 (Paederi, Lathrobii). — Nouvelle Revue d'Entomologie Supplément **12** (4): 1-440.
- FAUVEL A. (1904): Staphylinides nouveaux du Sinaï et de la mer Rouge. — Revue d'Entomologie **23**: 71-74.
- ROUGEMONT G.M. DE (1997): *Dysanabatium* BERNHAUER 1915 (Insecta: Coleoptera: Staphylinidae) – An uncommon but widespread genus in the Oriental region. — Annalen des Naturhistorischen Museums in Wien **99B**: 319-331.

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